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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,690	09/18/2003	Hiromi Nakanishi	12852-020001	5208

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NEW YORK, NY 10022-4611

EXAMINER

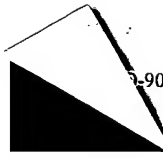
KIANNI, KAVEH C

ART UNIT PAPER NUMBER

2883

DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.



# Office Action Summary

Application No.

10/664,690

Applicant(s)

NAKANISHI ET AL.

Examiner

Kianni C. Kaveh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 18 September 2003 and 14 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 14 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.



### **DETAILED ACTION**

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-13, drawn to an optical receiver including an optical fiber, classified in class 385, subclass 92.
- II. Claim 14, drawn to a method of producing an optical receiver including the step of connecting the lead pins to the light-receiving device with wires, classified in class 385, subclass 53.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case in group I the process of making an optical receiver can be used in wireless optical communication rather than an optical receiving device that can be used an optical pigtail receiving unit in Group II invention.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

During a telephone conversation with Mr. Burdock on 4/14/05 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-13. Affirmation of this election must be made by applicant in replying to this Office action.

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Claim 14 is withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### **Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuhara et al. (Kuhara) (US 6340831).

Regarding claim 1, Kuhara teaches an optical receiver (shown in at least figures 30-31) comprising:

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(a) an optical fiber 290; (b) a rear-illuminated type light-receiving device 287 for receiving incoming light emerging from the optical fiber 290;

(c) a submount 288 that:

(c1) supports the light-receiving device 287; and

(c2) is provided with a reflecting face 292 for reflecting the incoming light so that the light can enter the light-receiving device 287; and

(d) a package housing 304 the submount 288 (see col. 24, 3<sup>rd</sup> parag.).

However, Kuhara does not specifically teach wherein the above package housing is a coaxial type package housing. It is obvious/well known to those of ordinary skill in the art when the invention was made that a house having walls in the same directed axis/direction is/known-as a coaxial package housing, produced with such configuration with a motivation of producing an optical receiver with low loss, low loss that can be used in an optical communication system (see col. 6, lines 26-40).

Regarding claims 2- , Kuhara further teaches wherein the submount 288 is provided with an optical path-forming groove 289 for introducing the incoming light emerging from the optical fiber (see fig. 31, item 289, wherein the groove 289 guides optical light or is a channel/groove waveguide); wherein the optical path-forming groove is formed by etching (see at least col. 24, 1<sup>st</sup> parag.); wherein the submount is made of a material selected from the group consisting of single-crystalline silicon, glass, and ceramic (see at least col. 24, 1<sup>st</sup> parag.; wherein Si submount is a single/mono-crystalline silicon); wherein the light-receiving device is mounted on the

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submount such that the face of the light-receiving device nearest to the incoming light emerging from the optical fiber is not perpendicular to the optical axis of the incoming light (shown in at least fig. 31, item 287);

wherein the light-receiving device: (a) is made of a material selected from the group consisting of an InGaAs-based material and an InGaAsP-based material; and (b) comprises a light-receiving layer that aims at a wavelength band of a 1- $\mu$ m band to a 1.6- $\mu$ m band (shown in at least fig. 10, item wavelength band and InGaAsP-based material); member selected from the group consisting of a pigtail-type optical receiver, which is provided with an optical fiber at its one end, and a receptacle-type optical receiver, which has at its one end a connecting portion for coupling with an optical connector (see at least fig. 20, item connecting portion 111 having connecting pins 112, 113 and 114); wherein the coaxial type package is made of a material selected from the group consisting of iron, copper, copper-nickel alloy, and stainless steel (see at least col. 17, 4<sup>th</sup> parag.).

### ***Citation of Relevant Prior Art***

Prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In accordance with MPEP 707.05 the following references are pertinent in rejection of this application since they provide substantially the same information disclosure as this patent does. These references are:

Kuhara et al. 6530698

Kuhara et al. 6043550

Lavallee et al. 20030063889.A1

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Lavallee et al. 6704488 B2

Moon et al. 20040246477 A1

Musk 20020071638 A1

Musk 6445858 B1

Nakanishi 20030002820 A1

Nakanishi 6808316 B2

These references are cited herein to show the relevance of the apparatus/methods taught within these references as prior art.

#### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to K. Cyrus Kianni whose telephone number is (571) 272-2417.

The examiner can normally be reached on Monday through Friday from 8:30 a.m. to 6:00 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font, can be reached at (571) 272-2415.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

(703) 872-9306 (for formal communications intended for entry)

**or:**

Hand delivered responses should be brought to Crystal Plaza 4, 2021 South Clark Place, Arlington, VA., Fourth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be directed to the Group Receptionist whose telephone number is (703) 308-0956.

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K. Cyrus Kianni  
Patent Examiner  
Group Art Unit 2883

April 19, 2005